

REMARKS

Claims 1, 3-12, 15, 16 and 18 are pending in the application, and stand rejected. Claims 4-6 are hereby canceled without prejudice, and claims 1, 3, 12 and 18 are hereby amended. Upon entry of this Amendment, claims 1, 3, 7-12, 15, 16 and 18 will be pending, and are presented for reconsideration. Applicants submit that no new matter is introduced by the amendments, and that all pending claims, i.e., claims 1, 3, 7-12, 15, 16 and 18, are in condition for allowance.

Amendments to the Claims

Independent claim 1 is amended, in part, to incorporate the limitations of claims 4 and 6. Claim 1 now recites, in part, that a transistor and a storage capacitor share a single layer of unpatterned semiconducting material situated between their respective first layers of conductive material and their respective second layers of conductive material.

Claim 1 is also amended to recite that the transistor for applying an addressing voltage to the display medium charges the pixel electrode with an electrical pulse having a duration that is insufficient to fully evolve the optical state of the display medium. Support for this amendment may be found, for example, in original claim 19, and at page 3, line 28 to page 4, line 3.

Claim 3 is amended to clarify that “same” means “single”. Claim 12 is amended to depend from and be consistent with amended claim 3. Support for this amendment may be found, for example, in FIG. 4B.

Claim 18 is amended to incorporate limitations from claims 4 and 6. Claim 18 now recites, in part, that a storage capacitor includes a layer of insulating material and a layer of unpatterned semiconducting material, both of which are situated between a first layer of conductive material and a second layer of conductive material.

Accordingly, Applicants submit no new matter is introduced by the amendments to claims 1 and 18.

Objection to the Drawings

The drawings are objected to under 37 CFR § 1.83(a) for allegedly not showing the feature recited in claim 1 of “an addressing event having a duration that is insufficient to fully

evolve the optical state of the display medium.” This feature was added to independent claim 1 via the Preliminary Amendment filed on April 28, 2003. The present amendment to claim 1 replaces the phrase “addressing event” with the phrase “electrical pulse”, therefore rendering the objection moot; as described above, this amendment is fully supported by the application as originally filed, for example, original claim 19. Therefore, Applicants respectfully request reconsideration and withdrawal of the objection to the drawings.

Rejection of Claims 1, 3-12, 15 and 16 Under 35 U.S.C. § 112, First Paragraph

Claims 1, 3-12, 15 and 16 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Specifically, the Office action asserts that the application as filed does not contain sufficient information regarding the claimed feature “an addressing event having a duration that is insufficient to fully evolve the optical state of the display medium.”

Claim 1 has been amended to recite, instead of an addressing event, “an electrical pulse having a duration that is insufficient to fully evolve the optical state of the display medium.” As described above, this amendment is supported by the application as originally filed. Therefore, Applicants respectfully request that the rejections of independent claim 1, and of claims 3, 7-12, 15 and 16, which depend directly or indirectly from claim 1, under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Rejection of Claims 1, 3-12, 15, 16 and 18 Under 35 U.S.C. § 103(a)

Claims 1, 3-12, 15, 16 and 18 are rejected under 35 U.S.C. § 103(a) over Hopper et al., “An Electrophoretic Display, Its Properties, Model, and Addressing,” IEEE Transactions on Electron Devices, Vol. Ed-26, No. 8, August 1979, pp.1148-1152 (“Hopper”) in view of U.S. Patent No. 6,100,951 to Oversluizen et al. (“Oversluizen”). Claims 4-6 are herein canceled. Applicants respectfully submit that Hopper in view of Oversluizen does not teach or suggest the subject matter recited by amended independent claim 1, for the following reasons.

Hopper does not teach or suggest a display including a transistor and a storage capacitor that share a layer of unpatterned semiconducting material situated between respective first layers of conductive material and respective second layers of conductive material, as recited by claim 1. Hopper teaches a transistor-assisted addressing scheme; Hopper, however, teaches or suggests nothing about inclusion of a layer of unpatterned semiconductor material in the addressing scheme. See, e.g., Hopper page 1151, last paragraph and Fig. 5.

Oversluizen does not teach or suggest a display including a transistor and a storage capacitor that share a layer of unpatterned semiconducting material situated between respective first layers of conductive material and respective second layers of conductive material, as recited by amended claim 1. The Office action asserts that Oversluizen “discloses that the layer of semiconducting material (42’) is unpatterned (see fig. 21).” See Office action, page 5, fourth full paragraph. Applicants respectfully disagree.

Oversluizen describes the layer (42’) of undoped semiconductor material as a switching material for a TFT. See, e.g., Oversluizen, column 8, lines 58-61. Oversluizen states that the layer (42’) is etched to expose picture electrodes (18) and to define the TFT body. See, e.g., Oversluizen, column 9, lines 13-17. Thus, in contrast to the subject matter recited by claim 1, Oversluizen teaches a TFT that includes a patterned semiconductor layer.

Accordingly, Hopper and Oversluizen, even if combined, do not teach or suggest a display including a transistor and a storage capacitor that share a layer of unpatterned semiconducting material situated between respective first layers of conductive material and respective second layers of conductive material, a limitation expressly required by amended claim 1.

For the same reasons as for claim 1, Applicants respectfully submit that Hopper and Oversluizen, each alone or in combination, do not teach or suggest all the limitations of amended claim 18 such as the limitation that a storage capacitor includes a layer of unpatterned semiconducting material. Therefore, amended independent claims 1 and 18 are patentable over Hopper in view of Oversluizen. Claims 3, 7-12, 15, and 16 depend directly or indirectly from claim 1. Because claim 1 is patentable over Hopper in view of Oversluizen, Applicants submit that claims 3, 7-12, 15, and 16 also are patentable over Hopper in view of Oversluizen.

Therefore, Applicants respectfully request that the rejection of claims 1, 3, 7-12, 15, 16 and 18 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

CONCLUSION

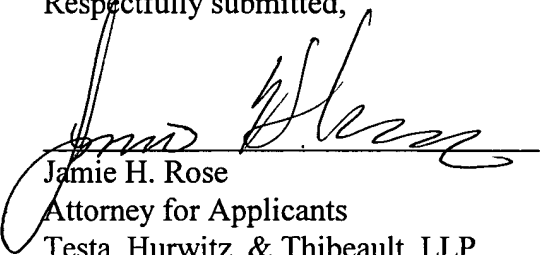
In view of the arguments presented herein, Applicants respectfully request reconsideration of claims 1, 3, 7-12, 15, 16 and 18, as amended, with claims 1, 3, 7-12, 15, 16 and 18 proceeding to allowance. The Examiner is invited to call the undersigned, if the Examiner believes that a telephone conversation could be helpful in expediting prosecution of the instant application.

Respectfully submitted,

Date: October 17, 2003
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